

10 April 2018

Official Information Request No. 8140002539  
(Please quote this in any correspondence)

Phil Pennington (Radio NZ)  
[Phil.pennington@radionz.co.nz](mailto:Phil.pennington@radionz.co.nz)

Dear Phil

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**Local Government Official Information and Meetings Act 1987**

**Re: Skyscraper development**

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I refer to your email, which we received on 09 March 2018, requesting information about structural steel quality assurance programme implemented by the Auckland Council and in particular reference to two buildings the Seascope and the Pacifica.

The New Zealand Standard, Steel structures Standard Part 1: Materials, fabrication and construction NZS 3404 Parts 1 and 2:1997: is cited by Ministry of Business, Innovation & Employment (MBIE) acceptable solutions and verification methods for New Zealand Building Code clause B1 structure. B1/VM1/5.1.

In order to comply with NZS 3404 2.2.2 acceptance of steels, a robust conformance assessment and the role of third parties in this process are critical in demonstrating a compliance path. This compliance path should also include guidance for identifying appropriate third party product certification schemes and producer statements (PS3).

This need is captured in the AS/NZS material supply standards. Manufactures of steel products to these standards must meet conformance requirements for initial type testing and factory production control.

Product certification entails a site assessment of the steel mill and fabricator facilities to determine if the management and processes are capable of consistently manufacturing product to standard as well as independent product testing. These activities are undertaken by a suitably qualified conformance assessment body.

The conformance assessment body should be accredited by a signatory to international accreditation forum multilateral recognition agreement for example JAS-ANZ. We currently bench mark ACRS for steel mills, ILAC-MRA for laboratories and QMS ISO9001/ISO3834 or SFC for fabricators.

The Auckland Council has developed a steel conformance “decision tree” to assist with steel compliance and their quality assurance programme. Steel Construction New Zealand Inc. have used our decision tree in their report No: SCNZ 111:2017 New Zealand guide to the sourcing of compliant structural steels which is a direct result of the HERA warnings and a BECA presentation at SESOC 2017. (Reference attached Steel Compliance path decision tree).

The British Standards Institute would also like to use the decision tree to supplement their current standard which would tailor the standard to meet any additional requirements specific to New Zealand.

### **Seascape**

- Structural Engineers, Acoustics & Fire - Mott MacDonald
- Steel & Façade - China construction
- Peer Review structure and wind load - Orocon

All the steel used in Seascape is being imported from China. CSC/ JingGong Steel must supply the steel Inspection and Test Plan (ITP) and quality plan.

Finished steel samples will be sent to a variety of different testing providers including New Zealand testing facilities. JingGong Steel is to provide all the logs and details of testing undertaken by SGS China & SGS NZ. These must be forwarded to Dr Mark Foo of Q Design (acting on behalf of the Auckland Council) for review.

The project has three key Quality Assurance plans supplied:

- (a) the overall project
- (b) the structural steel
- (c) the facade

Aurecon provided a PS2- (Design Review)

JingGong Steel will provide the PS3 (Construction Monitoring) for the project and Mott Macdonald will provide PS4s (Construction Review).

### **Pacifica**

The “Pacifica” building at 10 - 12 Commerce Street, is supported by a cast in-situ reinforced concrete structure with post tensioned (‘PT’) slabs supported on reinforced concrete columns and walls. The PT is used to reduce slab thickness (and therefore, building mass) to drive efficient structural design and optimise floor to floor heights. This approach is commonly used in large high-rise developments in Australia; and it has been adapted to suit New Zealand’s conditions.

In terms of structural steel, this is limited to reinforcing steel only.

### **Auckland Council’s Guidance for a Structural steel compliance path**

The following is an outline of a formalised and agreed compliance path for all structural steel.

The key elements to demonstrate steel compliance are:

- Quality of steel = Demonstrate compliance to steel grade and type as specified on the drawings
- Manufacture = Demonstrate compliance to grade and dimensions of hot rolled sections as specified on the drawings
- Fabrication = Demonstrate compliance of structural sections to dimensional and weld details as specified on the drawings

These key elements will be addressed in a “Steel compliance document” which shall be formally submitted as a controlled and client approved document, signed off as approved by

the structural designer and/or the structural PS1 author, as part of the consent for the structure.

Consents containing structural steel elements shall have attached the following advice notes:

- Manufacturing data report to be submitted to council for comment before any on site erection can proceed
- The PS4 author shall confirm the steel has been supplied and erected in accordance with the approved “steel compliance document”
- Any revisions to the “steel compliance document” shall be by an amendment to the relevant consent
- An amendment to demonstrate compatibility of steel grades not recognised in NZS 3404 shall be required for any revision to steel supplied other than that specified on the approved consent drawings

The Auckland Council has been working closely with Steel Construction New Zealand inc. to produce a Steel Compliance document. Alistair Fussell Alistair.Fussell@scnz.org from Steel Construction New Zealand is happy to reference this draft guide.

### **Proposed content of the Steel compliance guide**

#### **Material procurement, including**

- A cross reference spreadsheet showing fabricator – material description – mill – yes or no indication of suitable accreditation for both the supply mills and test laboratories.
- A material take off co-ordinated spread sheet of a cross referenced table of all sizes to specification you propose to use on this project
- Project specification and drawings
- Purchasing and receipting of materials

#### **Welding compliance**

- Governing specifications
- weld quality control
- Weld defect repair procedure

#### **Protective coating**

- Protective coating specification and compliance

#### **Manufactures data report**

- Erection compliance
- Bolting
- Survey
- Handover certificate

#### **Attachments**

- Accreditation certificates
- Any other relevant information

#### **Proposed content of the Manufactures data report (MDR)**

- List of contents
- Inspection & test plan
- Inspection release note
- Material certificate summary: Material certificates: Test reports
- Certificates of conformity
- Welding records
- Non-destructive testing records
- Heat treatment records
- Dimensional & tolerance records

- Painting & coating records
- Drawings: Data sheets
- Miscellaneous certification, test reports & records
- List statutory or 3rd party approval requirements
- Statutory or 3rd party approval documentation

**Details of projects with a major structural steel element and which are currently under building consent**

Project name	Address	Company
NZICC conference centre	85 - 91 Hobson Street	Fletcher Construction
NZICC Hotel	101 Hobson Street	Fletcher Construction
Commercial Bay	7 Queen Street	Fletcher Construction
Park Hyatt Hotel	99 Halsey Street	Hawkins - China Construction
Alexandra Park Racing	Greenlane West	CANAM - Ganellen
Seascape	85 Custom Street	China construction
Central Rail Link	Auckland city	Joint venture
Westfield Newmarket	277 Broadway	Scenter properties (NZ) Ltd
Westfield Newmarket	309 Broadway	Scenter properties (NZ) Ltd
Pacifica	10 Commerce Street	AECOM

Should you believe Auckland Council has not responded appropriately to your request, you have the right by way of complaint, under section 27(3) of the LGOIMA, to apply to the Ombudsmen to seek an investigation and review of the decision.

If you have any further queries please contact me on 09 301 0101 quoting Official Information Request No. 8140002539

Yours sincerely



Grace Heinemann  
Privacy & LGOIMA Business Partner  
Democracy Services